**Creating a Lesson Plan**

**Activities:**

Create a lesson plan for a differentiated lesson within your subject interests. Differentiate the content according to the level of readiness of the students, the process according to the students learning profiles and the products according to the students interests.

**Creating a Lesson Plan:**

* Plan the course fully.
* Plan the assessment.
* Make course objectives clear.
* Create a a chart dividing students according to interests and learning styles and use this when planning the lessons.
* Consider the levels of student readiness using Blooms Taxonomy.

**1.Determine the student's level of readiness:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Readiness | Common Verbs | Types of Questions |
| Knowledge: | Exhibits previous learned material recalling facts, basic concepts and answers. | Tell …  Define …  Locate …  List …  Select… | Who …?  What …?  Where …?  When …?  Describe …? |
| Comprehension: | Demonstrates understanding of the content, interpreting, giving descriptions and stating main ideas. | Summarize …  Explain …  Interpret …  Describe …  Compare …  Differentiate … | What do you think …?  What was …?  Distinguish between …  Provide an example of … |
| Application: | Is able to solve problems by applying acquired knowledge in different ways. | Solve …  Calculate …  Manipulate …  Apply …  Modify … | How is …?  Why is …? |
| Analysis: | Is able to synthesize and make inferences to support generalizations. | Analyze …  Organize …  Compare …  Distinguish … | What are the …?  Classify …?  How does … compare/contrast with …?  What evidence …? |
| Synthesis: | Is able to compile information in a different way by combining elements in a new pattern | Design …  Hypothesize …  Support …  Justify … | What would you predict …?  How would you create …?  What might happen …? |
| Evaluation: | Presenting and defending opinions by making judgments about information validity of ideas. | Choose …  Estimate …  Judge …  Defend … | Do you agree …?  What is the most important …?  How would you decide about …?  Would you use to assess …? |

Create a chart with the names of the students in each category and plan the lesson differentiated task directly for them. As they move to a different level of readiness move them around in your chart. Try to motivate the students to move past the knowledge level of readiness in order to produce a long term memory experience.  
You can organize the content and organize the student work according to their level of readiness although you should also consider their zone of proximal development which is bringing them out of their comfort zone just enough to promote effective learning. You will have the content according to the students level of readiness.

**2.Create Authentic Assessments:**

There are many ways to differentiate assessments. Both formal and informal assessments may be used. Students become more succesful, confidente and learn more when they are assessed in an effective manner because effective assessment requires higher level thinking and application of knowledge.

* Projects
* Rubrics
* Presentations
* Models
* Portfolios
* Learning Contracts
* Graphs and charts
* Essays
* Webquests

You can choose the forms of assessment that would be more appealing to each student which is will promote effective learning within the learning outcomes that need to be met. You will have your product according to the students interest.

**3.Plan there Process according to student learning profile:**

Authentic learning is based on tasks, projects and activities.

* Collaborative projects
* Interaction with experts in the fied they are studying
* Sustained research
* Problem solving
* Use of simulations
* Reflection
* Creation of something new

Organize student learning processes according to their learning profiles.

**Example of Differentiated Education Lesson Plan:**

|  |  |  |  |
| --- | --- | --- | --- |
| How students will use technology to differentiate content, process, or product by readiness, interest, or learning profile: | | | |
| Content according to Readiness | Tier I  (Basic) | Students will research through scaffolding. I will give them a list of sites to start their research and a list of objectives to guide them.   * Universe is composed of stars, planets, nebulae, black holes etc. * Reactions in the stars are nuclear fusion reactions. * Chemical compositions of stars.   <http://www.howstuffworks.com/star.htm> | |
| Tier II  (Grade level) | Students will research:   * Analyze and discuss theories of formation of the Universe. * Study nuclear fusion, fission and differentiate between these and chemical reactions. * Group the stars according to chemical composition. | |
| Tier III  (Higher level) | Students will research:   * Do research on the experiments in CERN recreating the Big- Bang and also to do research on the particles created in such a reaction. * Analyze the amounts of each particle created in CERN experiments. * Study nuclear fusion, fission in terms of energy production and study the possibility of cold nuclear fusion reactions. <http://cold-nuclear-fusion.com> | |
| Process according to Learning Profile | Tier I | Students will do research and prepare the projects in group. They will do their research on the internet and using books and software available at school for simulations.  **The Software they may use:**  Software for graphing:  Inspiration, webspiration..  Software for surveys:  [www.surveymonkey.com](http://www.surveymonkey.com)  [www.surveygizmo.com](http://www.surveygizmo.com)  Media presentation software:  Windows Moviemaker  photostory  [www.prezi.com](http://www.prezi.com)  [www.glogster.com](http://www.glogster.com) | Sites the Students may be interested in starting their research on:   * <http://www.howstuffworks.com/star.htm> * <http://science.howstuffworks.com/nuclear-power1.htm> * <http://science.howstuffworks.com/nuclear-power.htm> * <http://cold-nuclear-fusion.com> * <http://astronomyonline.org/Stars/Supernova.asp?Cate=Stars&SubCate=OG04&SubCate2=Supernova> * [http://ec.europa.eu/research/star/](http://ec.europa.eu/research/star/index_en.cfm?p=9) * <http://www.observatorycentral.com/> * <http://hypnagogic.net/sim/#Sim> * <http://www.kidsnetsoft.com/multimedia/process.html> * [www.cern.ch](http://www.cern.ch) * Particle collision data on CD given by CERN. |
| Tier II | Students will do research in groups using the internet and/or software available at school and decide how they are going to present their work, they will need to discuss with me the phases of their project so that I may orient them in a way that all the learning objectives are contemplated in the work.  **The Software they may use:**  Podcasting software:  Audacity  <http://www.abc.net.au/services/podcasting/>  Software for surveys:  [www.surveymonkey.com](http://www.surveymonkey.com)  [www.surveygizmo.com](http://www.surveygizmo.com)  Media presentation software:  Windows Moviemaker  photostory |
| Tier III | Students will do research and prepare the projects using construction of models, simulations or any other presentation resulting from research and hands on activities. They may use the data of cosmic ray telescope that we have at school to monitor the cosmic rays that are captured by this telescope which is installed on the roof of our school building. |
| Product according to Interest | Tier I  Visual | The student will produce his project with the information using images, graphs charts, animations and other visual means within the students preferred interests on the topic of choice which was previously negotiated with me. | |
| Tier II  Auditory | The student may present his project as a podcast, a video with auditory explanations on the topic of choice which was previously negotiated with me. | |
| Tier III  Kinesthetic | The student will produce his project which may be model construction, simulations or charts resulting from investigation or results from hands on work on the topic of choice which was previously negotiated with me. | |